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LOGGED  
28 MAR  
28 1969

March 24, 1969

Declass Review by NIMA/DOD

Post Office Box 6788  
Fort Davis Station  
Washington, D. C. 20020

Attention:

Subject:

[Redacted]

[Redacted]

I am pleased to forward two copies of Progress Report Number 4 pursuant to paragraph 5 of Attachment 1 to Amendment 4 to subject contract.

Two copies of the Monthly Progress Reports and one copy of this letter have been forwarded to the Technical Monitor under separate mailing.

I trust this meets all of your requirements. If you have any questions, please contact me.

[Redacted]

REW/dt

Incl. a/s

Declass Review by NIMA/DOD

GROUP - 1  
Excluded from automatic  
downgrading and  
declassification

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69-DC-1021-2

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PROGRESS REPORT NO. 4

COLOR IMAGE ASSESSMENT

PROJECT 6619

Period: February 1 through February 28, 1969

PROGRESS DURING THE PERIOD

During the report period work continued on the exposure table generation routine and work was initiated in the manufacture of target friskets for the MTF phase of the study.

Received from the customer were extra scans on specific desaturated wedges exposed on SO-151 material. These scans have been run through the ensemble averaging and standard exposure table generator programs. The resulting exposure tables will be used to test the capability of the fully operation color exposure table generator routine to generate tables for wedges not included in the initial set up package.

Full sets of desaturated wedge traces were received from the customer. The wedges were traced on SO-121 and 8443 materials; these traces replace those tapes that contained faulty digital data.

STATINTL

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On 4 March, 1969 a visit was made to the customer's facility by [redacted] A discussion was held with customer and [redacted] personnel concerning the future technical direction the program could take and the success and shortcomings of the present program. The discussion ended with a better understanding of the goals of the present work and appropriate objectives for future work in this area.

STATINTL

STATINTL

A meeting was held between [redacted] and the technical program contact at the customer's facility concerning the status of the current projects. The color ensemble averaging program documentation, the Fortran listing of this program, and example output were delivered. Also delivered were integral to analytical filter microdensity conversion matrices for SO-151, SO-121 and 8443 emulsions as determined for the 1032T [redacted] Trichromatic Microdensitometer with a 1 x 80 micron slit. It was agreed that the final report for the effort on this program will consist of a listing of all documented programs, with appropriate references to the theory as presented in the final

report from the last effort, with necessary additions of new theory made where such were advanced during the present program.

The characteristic vector program has been successfully run. A restart feature has been added to the program to allow the operator to stop the program at his option and restart it at a later date when appropriate computer time exists. A separate exposure table normalization program was developed to determine and eliminate exposure shifts between curves for the same dye layer. The general method consists of centering the exposure tables at certain preselected density points.

The program documentation for the characteristic vector program and the exposure table normalization program has been completed and will be sent to the customer, along with flow charts and Fortran listing, during the next reporting period.

#### WORK PLANNED FOR NEXT PERIOD

Although the convergence of the characteristic vectors is fairly rapid, the percentage of the trace that must be accounted for by the characteristic vector set remains unknown at this time. It appears that accounting for 99% of trace with characteristic vector may not be sufficient, as significant exposure errors exist in the toe and shoulder areas when exposure table reconstruction is accomplished. This problem, along with the entire exposure table reconstruction routine, will be analyzed during the upcoming work period. Also during this period the MTF target friskets on SO-151 analytical yellow, magenta and cyan layers will be delivered to the customer with the required trace instructions.